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ABSTRACT

Fifty-four admissions to the psychiatric unit of a general hospital were asked to predict their length of hospitalization. The difference between their predicted and actual length of hospitalization was calculated (expectancy-reality discrepancy-ERD). Patient ERD scores were compared with self-report, ward, and therapist measures of patient improvement. Those patients who had the largest discrepancy between their expected and actual length of hospitalization (the largest ERDs) tended to improve the least while hospitalized. Improvement did not appear to be related to whether a patient was discharged sooner or remained longer than he expected. (Author)

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EXPECTANCY-REALITY DISCREPANCY AND PATIENT IMPROVEMENT

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There is considerable evidence to support the relationship between patient expectancy and improvement (Clemes & D'Andrea, 1965; Frank, 1968; Goldstein, 1962; Goldstein, Heller, & Sechrest, 1966; Jacobs, Muller, Anderson, & Skinner, 1972; Wilkins, 1973). Levitt (1966) proposes, however, that the expectancies of the patients may not be as important in relation to improvement as is the discrepancy between these expectations and the ensuing reality. He hypothesizes that

> there is a negative correlation between the effectiveness of any psychotherapeutic intervention and the discrepancy between the patient's expectation of the nature of the therapy process and the reality of the encounter. The more the patient finds that the therapeutic situation fails to conform to his preconception of it, the less it is likely to affect him favorably (Levitt, 1966, 163-166).

Studies relating directly to the relationship between therapy outcome and what Levitt calls the "expectation-reality discrepancy" (ERD) appear to be scarce. In one such study, Overall & Aronson (1963) hypothesized that patients with more discrepant expectations of their therapists' behavior would be less likely to return for treatment. As predicted, patients who failed to return for the next scheduled interview showed greater discrepancies between their expected and their actual perception of their therapists' behavior during the interview.

The ERD under investigation in the present study was the patient's expectation of his length of stay in the psychiatric unit of a general hospital compared to his actual length of hospitalization. Patient ERD was related to improvement as determined by self-report, ward, and therapist measures. The specific hypotheses were: (1) the less the discrepancy between expected and actual length of stay, the greater will be the degree of patient improvement as reported by the patient, the therapist, and the ward staff; (2) those patients who overestimated their length of stay (left sooner than they expected) will improve more than patients who underestimated their length of stay (stayed longer than they expected).

METHOD

Subjects. Ss were 54 (30 females, 24 males, age range 16-65) admissions to the psychiatric unit of a general medical hospital.

Experimental Measures. Three measures of improvement were used: (1) the present self questionnaire (patient), (2) the behavior rating scale (staff), and (3) the behavior rating scale (therapist). All scales were derived from a scale developed by Bunney & Hamburg (1963) for the systematic observation of emotional behavior. The present self questionnaire and the staff behavior rating scale were comprised of 20 questions. Responses ranged from "does not apply to patient at all" to "applies to patient very much so", and covered such dimensions as depression, anxiety, hostility, and bizarre behavior. The therapist behavior rating scale contained six questions taken from the staff rating scale. Measures were obtained upon admission and again at the time of discharge. The difference between the admission and discharge scores was the amount of measured improvement.

Patient ERD scores were determined by the differences between their expected length of hospitalization (in days) and their actual length of hospitalization. Such demographic variables as sex, age, diagnosis, and number of previous admissions were also related to ERD scores.

Procedure. Upon admission to the psychiatric unit and before the first interview with the psychiatrist, each patient was asked to predict the number of days he would be in the hospital, as well as to complete the present self questionnaire. On the second day of hospitalization a member of the nursing staff on the unit completed the ward staff behavior rating scale on the patient. The third measure was obtained from the patient's individual therapist who was also asked to complete a behavior rating scale after his initial contact with the patient. On the evening prior to or the day of discharge, the three individuals (patient, nurse, therapist) again completed the questionnaires.

RESULTS

An analysis of the patient population indicated that there were approximately an equal number of new and previous admissions. Thirty of the 54 patients were married and the most frequent diagnosis was depression (N=25). There were no significant relationships found between either sex, age, marital status or length of hospitalization with patient improvement.

On the average, patients underestimated their hospital stay by an average of 3.8 days. Although the ERD range was large (nine days overestimated--28 underestimated) half of the Ss had discrepancies (in either direction) of two days or less. Thirty-four of the 54 patients underestimated their hospital stay.

In order to analyze the relationship between improvement and ERDs the Ss were divided into the following four groups as a function of the magnitude and direction of their ERD scores (whether the patient overestimated or underestimated his length of hospitalization): (1) the high discrepancy group (N=13) were those underestimators who had a discrepancy of nine or more and those overestimators who had a discrepancy of eight or more; (2) the medium discrepancy group (N=13) including those underestimators who had an ERD from four to seven and those overestimators with an ERD of three; (3) the low discrepancy group (N=23) included the underestimators with an ERD between one and three and the overestimators between one and two; (4) the fourth group (N=5) was composed of the patients who had an expectancy-reality score of zero.

Table 1 lists the Pearson-Product Moment correlations between patient ERDs

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INSERT TABLE 1 ABOUT HERE

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and the mean improvement scores for all 54 Ss and for the Ss within each of the four discrepancy groups. Fourteen of the sixteen correlations are in the predicted direction and range from -.45 to +.08. As discrepancy increases, improvement decreases, regardless of the measuring source (patient, staff, therapist). The correlation between ERD scores and overall mean improvement scores for all 54 Ss was significant ($r=-.27$, $df=53$, $p<.05$) and in the predicted direction.

Table 2 gives the mean improvement scores for the four discrepancy groups and

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INSERT TABLE 2 ABOUT HERE

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for the combined medium and low discrepancy groups. As predicted, the mean improvement scores for the high discrepancy group were lower than for all other discrepancy groups. When an analysis of variance is applied, however, none of the means were found to be statistically different from one another. To determine if an analysis of the two extreme discrepancy groups would be fruitful, the low and medium discrepancy groups were combined. The overall mean improvement for the high discrepancy group was 14.38 as compared to a mean of 19.01 for the combined medium-low discrepancy group. While the means were in the predicted direction, they were not found to be statistically different from one another.

In order to determine if those patients who overestimated their length of stay tended to improve more than those who underestimated their length of stay mean improvement scores for the underestimators (N=35), overestimators (N=14) and zero discrepancy group (N=5) were compared. The mean improvement scores for these three groups were 17.83, 17.65, and 20.34 respectively. A statistical analysis of these means revealed no differences in the amount of improvement

suggesting that improvement was unrelated to whether the patient underestimated or overestimated his length of hospitalization.

DISCUSSION

The significant negative correlation between the overall mean improvement scores and Ss ERD scores suggests that expectation discrepancies regarding duration of hospitalization may be an important component of therapeutic outcome, thus supporting Levitt's (1966) contention regarding the importance of investigating discrepancy measures. These findings also suggest the possible value of directly manipulating patient expectations concerning the duration of treatment (Hoehn-Saric, Frank, Imber, Nash, Stone, & Battle, 1964). One possible avenue of future research would be comparing improvement scores for patients who are given differing explicit expectations regarding duration of hospitalization.

The hypothesis that those patients who overestimated their length of stay would tend to improve more than those who underestimated their length of hospitalization was not substantiated. Goldstein & Shipman (1961) reported similar results in their study of symptom reduction, finding that perceived symptom reduction was not related to whether the patient over or underestimated number of expected symptoms, but to the difference between the number of expected and perceived symptoms. Wright (1960) has noted that individuals experiencing discrepant expectations will react emotionally to the size and direction of the discrepancy. That is, if the direction of the expectancy-reality discrepancy is in agreement with the patient's wishes, positive affect evolves with accompanying surprise and hopefulness. If, on the other hand, the direction of the discrepancy is not in accord with the individual's expectancy, Wright found that disappointment and frustration ensue. Attempts by hospital personnel to minimize discrepancies may help to alleviate patient disappointment and depression.

The finding that there were far more patients who underestimated than overestimated their length of stay may be related to some types of placebo responses to hospitalization admission itself. Predictions from patients at other times during their hospitalization may have produced more realistic ERDs and thus resulted in more positive patient affect levels.

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Table 2

Mean Patient Improvement Scores For Discrepancy Groups

	Overall Mean Improvement	Patient Measure of Improvement	Staff Measure of Improvement	Therapist Measure* of Improvement
High Discrepancy Group (N=13)	14.38	12.69	13.08	18.45
Medium Discrepancy Group (N=13)	19.82	18.85	19.62	20.25
Low Discrepancy Group (N=23)	18.55	16.48	17.13	22.31
Zero Discrepancy Group (N=5)	20.34	17.00	15.40	28.64
Combined Medium-Low Discrepancy Group (N=36)	19.01	17.34	18.03	21.55

*Adjusted to 100 point scale

Table 1

Pearson-Product Moment Correlations For Discrepancy Groups

	Overall Mean Improvement	Patient Measure of Improvement	Staff Measure of Improvement	Therapist Measure of Improvement
Total Ss (N=54)	-.27*	-.20	-.15	-.19
High Discrepancy Group (N=13)	-.33	-.18	-.42	-.16
Medium Discrepancy Group (N=13)	-.18	-.45	+.02	+.08
Low Discrepancy Group (N=23)	-.25	-.10	-.15	-.20

*$p < .05$

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